

Claims 1, 3, 6 - 15, 17 - 22, 24, 27 - 29 and 32 - 47 are pending. Claims 2, 4, 5, 16, 25, 26, 30 and 31 have been canceled, claims 39 - 47 have been added, and claims 1, 8 - 10, 14, 19, 34 and 37 have been amended. Claim 1 as amended now contains the subject matter of former claim 5. Basis for the description in claims 1, 19, 34 and 37 of the inner cover layer as a "thermoplastic" can be found in various parts of the specification, including at page 14, lines 6 - 9 and page 30, line 9. Basis for reciting a "solid" core can be found in the Examples as well as in other parts of the specification. The description of the flex modulus of the outer cover layer can be found in the specification at page 36, lines 6 - 13. New claims 43 and 44 contain language from claim 35. New claims 45 - 47 have basis in various parts of the specification, including at page 14, lines 6 - 9. The Abstract and Specification also have been amended as is explained further below. The amendment to page 7 of the specification can be found at page 14, lines 1 - 3, page 31, lines 19 - 20 and original claim 35 as well as in other parts of the specification.

The Office Action indicates that more informative structural details of the point of novelty of the invention should be included in the Abstract. It is noted that the Abstract indicates that the outer cover layer of the golf ball preferably has a very soft Shore D hardness of no more than 50. This, in combination with a hard inner cover layer, as well as other claimed features of the invention, results in a golf ball having very high spin on short shots and lower spin on longer shots. This structure is believed to be novel and nonobvious as discussed further below. Furthermore, the

Abstract as revised provides that the golf ball preferably has an ionomeric outer cover layer.

The Office Action indicates that the critical properties of each layer of the ball should be shown on the drawings. A Request for Approval of Drawing Changes with an amended drawing is attached in response to this request.

The cross references to parent applications have been corrected and updated.

Claims 1 - 22 and 24 - 38 are rejected under 35 U.S.C. §112, second paragraph. Reconsideration is requested.

The Office Action contends that the claims are indefinite because they fail to exclude wound golf balls. While independent claim 1 has been revised to provide that the core is solid, other claims are not limited to a solid core. The applicants respectfully submit that the multi-layer cover of the present invention can be used on golf balls which do not have solid cores.

Claims 6, 12 - 14, 24 and 27 - 30 are alleged to be indefinite under 35 U.S.C. §112 due to the lack of a referenced standard. The applicants submit that definitions of cut resistance and spin factor are stated clearly and in great detail in the specification. Thus, merely because these definitions are new and/or not found in a dictionary, the terms should not render the claims indefinite. An applicant is permitted to be his or her own lexicographer. Reconsideration is requested.

Claims 1 - 22 and 24 - 38 are rejected under 35 U.S.C. § 102(b) as being anticipated by or, in the alternative, under 35 U.S.C. § 103 as obvious over Nesbitt '193, Proudfit '187, Endo '950 or Hamada et al '674. Reconsideration is requested.

The present invention is directed to a golf ball which has spin properties rendering it well suited for use by low handicap players, including professionals. The golf ball has a multi-layer cover, the characteristics of which provide the ball with very high spin rate on short shots, thereby giving an experienced golfer excellent control on the greens. On long shots, however, the ball has a surprisingly low spin rate, thereby providing good distance on drives and when lower numbered irons are used.

Nesbitt '193 is discussed in the present application at page 4, lines 4 - 21. Nesbitt '193 generally discloses a golf ball with a solid core, a hard inner cover layer and a soft outer cover layer. However, Nesbitt does not recognize the advantages and unique spin properties which result from the use of the very soft cover which is claimed in independent claims 1, 19, 34 and 37 of the present application. The claims of the present application call for an outer cover layer with a Shore D hardness as measured on the ball of 50 or less. Claim 1 also calls for an outer cover layer with a flex modulus of 1,000 - 10,000 psi. The Example in Nesbitt '193 shows an outer cover layer with a flex modulus of 14,000 psi and a plaque Shore D hardness of 55. Claims 19 and 35 are even further distinguished from the Example in Nesbitt '193 in that they provide that the outer cover layer has a Shore D hardness of 48 or less. Furthermore, there is no discussion in Nesbitt '193 of the unique spin properties of the golf balls which are claimed in certain dependent claims of the present application. Thus, Nesbitt '193 does not disclose or render obvious the claims of the present application. Reconsideration is requested.

Proudfit '187 is directed to a multi-layer golf ball having an inner layer comprising ionomer and an outer layer containing natural or synthetic balata as a principal ingredient. Thus, the outer cover layer of the '187 ball contains a thermoset material, while in the preferred embodiment of the present invention, which is claimed in claims 1, 3, 6 - 15, 17 - 18, 20 - 23 and 38 - 39, the outer cover layer is an ionomer. There is no disclosure of the Shore D hardness of either the inner or outer cover layers of the golf balls described or exemplified therein. Col. 6, lines 28 - 31 of the '187 specification provide that the outer cover material has a flex modulus of 20,000 - 25,000 psi., which is significantly higher than the flex modulus of the outer cover layer which is recited in claim 1 of the present application. Reconsideration is requested.

Endo '950 relates to a golf ball with a two-layer cover in which the inner cover layer is stiffer than the outer cover layer. Shore D hardness values and flex modulus values are not claimed in the '950 patent. In order to fully appreciate the differences between the golf balls disclosed in Endo '950 and those of the present invention, a number of golf balls were made in accordance with Comparative Example 2 of Endo '950. The balls of Comparative Example 2 appear to be the most similar of all of the examples provided in Endo '950 to the subject matter claimed in the present application. The balls of Comparative Example 2 have an inner cover layer which, according to Endo '950 has a stiffness modulus of 3,500 kg/cm², and an outer cover layer with a stiffness modulus of 700 kg/cm². As is indicated in the attached Declaration of Mark Binette Under 37 C.F.R. 1.132, the balls which are replicas of

Comparative Example 2 of Endo '950 (labeled as Example 4 on Table 1 of the Declaration of Mark L. Binette) have an outer cover layer with a Shore D hardness of 57 when the hardness is measured on the curved surface of a ball. Thus, the balls of Endo '950 have a harder outer cover than is claimed in the pending claims of the present application.

It is also noted that Endo '950 at col. 12, lines 35 - 40 indicates that the balls of Comparative Example 2 were rated as "XS," meaning that they were too soft and heavy and had inferior resilience. In fact, the balls claimed in Endo '950 have harder outer cover layers than those of Comparative Example 2. It is therefore clear that balls which have a softer cover than those of Comparative Example 2 of Endo would be considered "too soft" under the standard of Endo '950. Stated another way, Endo does not disclose or suggest the golf balls which were claimed in the present application. Reconsideration is requested.

Hamada et al '674 is directed to a three-piece solid golf ball with a dual layer core and a single cover layer formed over the core. As indicated at column 2, lines 26 - 29, the outer core comprises vulcanized rubber obtained from a butadiene rubber, a co-crosslinkable comonomer, zinc oxide and peroxides as an essential component. In contrast, the intermediate layer of the golf ball which is claimed in the present invention is an inner cover layer formed from a thermoplastic. Reconsideration is requested.

New dependent claims 40 - 47 recite further important features of the invention.

In view of the above, it is believed that this application is in condition for allowance, and such a Notice is respectfully solicited.

Respectfully submitted,

MICHAEL J. SULLIVAN ET AL.

By *Diane F. Covello*
Diane F. Covello
Registration No. 34,164
Chilton, Alix & Van Kirk
Attorney for Applicant

Date: July 22, 1997
750 Main Street
Hartford, CT 06103-2721

(860) 527-9211

Our Ref: P-4628 SPALD/164/US
DFC:kcs

New office
413 493 2466